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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Benno Syfrig

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22846

7590

04/03/2008

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EXAMINER

BASHAW, HEIDI M

ART UNIT

PAPER NUMBER

3732

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/596,625	Applicant(s) SYFRIG, BENNO	
	Examiner HEIDI M. BASHAW	Art Unit 3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 3-8 and 10-20 is/are pending in the application.
- 4a) Of the above claim(s) 1, 2 and 9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 3-8 and 10-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The amendment filed January 30, 2008 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows: The helical wound cutting edges added on page 3, par. 3 of the amendment along with the amendment to the drawings submitted.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Objections

1. Claims 16-17 and 20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim.

Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. Regarding claims 16 and 20, the independent claim includes the limitations of these claims on lines 5-8. Regarding claim 17, the independent claim includes the limitations on this claim on lines 8-10.

2. Claim 8 is objected to because of the following informalities: It is believed that the applicant omitted "wherein" in line 1 of the claim. Appropriate correction is required.

Claim Rejections - 35 USC § 112

1. Claims 18-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to

one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

2. Regarding claims 18-19 there is no support in the original specification for helical wound cutting edges.

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3, 6 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roane 5,145,373 in view of Appleby 4,897,037.

3. Re claim 3, Roane teaches a drill comprising a shaft having a head which is provided with means for a rotatably connection mounting in a drill device (col. 8, ll. 19-22), a boring drill part formed as a drill tool and including at least one helical groove, a pin projection arranged at a forward end of the drill part, the pin projection having a smaller diameter than the drill part and being approximately cylindrical, the pin projection including at least one helical groove extending to the at least one groove of the drill part and a taper arranged at a transition between the drill part and the pin projection as illustrated in fig. 12.

4. Roane does not teach an abrasive material being arranged on the pin projection including at its tip.

5. Appleby teaches an abrasive material being arranged on the pin projection including at its tip (col. 2, ll. 40-41).

6. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

7. Re claims 4 and 5, Roane does not specifically teach the drill wherein the pin projection has a length between 5 and 8 mm and a diameter of 1.3 to 1.6, however, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane since it has been held "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) MPEP 2144.05 II A.

8. Re claim 6, Roane does not teach the abrasive material of the pin projection consists of diamond dust.

9. Appleby teaches the abrasive material of the pin projection 22 consisting of diamond dust (col. 2, l. 33).

10. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

11. Re claim 7, Roane teaches the drill wherein the pin projection is rounded at the tip as illustrated in fig. 12.

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12. Re claim 8, Roane teaches the drill wherein the diameter of the drill part is at least approximately 2 mm and the total length of the drill part together with the pin projection is at least approximately 16 mm (see table 1).

13. Re claim 10, Roane teaches the drill wherein the at least one helical groove of the drill part is arranged to carry away drill material (col. 8, ll. 22-24).

14. Re claim 14, Roane teaches the drill wherein the pin projection is integrally attached to the drill part as illustrated in fig. 12.

15. Re claim 15, Roane does not specifically teach the drill wherein the transition has an angle of 90°, however, it would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane since it has been held “[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation.” In re Aller, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955) MPEP 2144.05 II A.

16. Re claim 16, Roane does not teach the drill wherein the abrasive material is coated into the pin projection including the tip.

17. Appleby teaches the drill wherein the abrasive material is coated into the pin projection including the tip (col. 2, ll. 40-41).

18. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

19. Re claim 17, Roane teaches the drill wherein the at least one helical groove of the pin projection extends to a respective one of the at least one helical groove on the

drill part and such that it traverses the taper between the drill part and the pin projection as illustrated in fig. 12.

20. Re claim 20, Roane teaches teach the drill wherein the pin projection includes a cylindrical sheath as illustrated in fig. 12.

21. Roane does not teach the drill wherein the abrasive material is arranged on the cylindrical sheath.

22. Appleby teaches the drill wherein an abrasive material is arranged on the cylindrical sheath (col. 2, ll. 40-41).

23. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby in order to provide a working surface with an abrading material as taught by Appleby (col. 1, ll. 11-12).

1. Claims 11-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Roane 5,145,373 in view of Appleby 4,897,037 as applied to claim 3 above, and further in view of Danger 6,179,616.

24. Re claim 11, Roane in view of Appleby does not teach the drill wherein the at least one helical groove of the drill part comprises a plurality of helical grooves.

25. Danger teaches the drill wherein the drill part comprises a plurality of helical grooves (col. 4, ll. 13-15).

26. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby further in view of Danger since it has been held the duplication of parts involves only routine skill in the art (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) MPEP 2144.04 VI B).

27. Re claim 12 and 13, Roane in view of Appleby does not teach the drill wherein the at least one helical groove of the pin projection comprises a plurality of helical grooves.

28. Dander teaches the drill comprises a plurality of helical grooves (col. 4, ll. 13-15).

29. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby further in view of Dander since it has been held the duplication of parts involves only routine skill in the art (*In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960) MPEP 2144.04 VI B).

30. Re claims 18-19, Roane in view of Appleby does not teach the drill wherein the drill part further includes a plurality of helical wound cutting edges.

31. Dander teaches the drill wherein the drill part further includes a plurality of helical wound cutting edges 8 (col. 4, ll. 13-15).

32. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify Roane in view of Appleby further in view of Dander in order to decrease the drilling time as taught by Dander (col. 2, ll. 44-48).

Response to Arguments

2. Applicant's arguments with respect to claims 3-8 and 10 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

1. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

2. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HEIDI M. BASHAW whose telephone number is (571)270-3081. The examiner can normally be reached on Mon-Thurs.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cris Rodriguez can be reached on 571-272-4964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Heidi Bashaw
Examiner
Art Unit 3732

/John J Wilson/
Primary Examiner
Art Unit 3732

HMB